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A61B 17/122

## [12] Utility model patent specification

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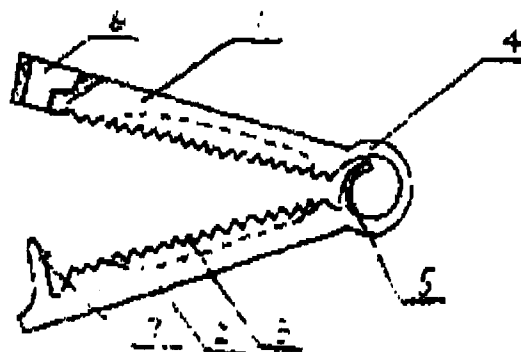
Claims: 1 page; Specification: 2 pages; Attached  
figures: 2 pages

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[54] Utility model name: Umbilical cord clamp

[57] Abstract

This utility model involves a type of umbilical cord clamp that has an upper and lower clamp body, an elastic ring and a backstop device etc. It is characterised by the respective installation of lock slot and cylinder in the upper and lower clamp body. Thus, when using this umbilical cord clamp, the whole clamp body can be opened simply by gently unlocking the lock cylinder of the clamp body. The structure of this umbilical cord clamp is compact and simple and the clamp can act as a sound safe utility model in medical appliances.



## Claims

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1. A type of umbilical cord clamp that has an upper (1) and a lower (2) clamp body and that is characterised by at least one row of clamp teeth (3) on both locking sides of the upper (1) and lower (2) clamp bodies, an elastic ring (4) with a backstop device (5) in the interior connected to the ends of the upper (1) and lower (2) clamp bodies, a clamp-slot shaped locking slot<sup>1</sup> (6) in the head part of the upper clamp body (1) and a locking piece (7) shaped like a reverse hook in the head part of the lower clamp body (2).
2. The umbilical cord clamp of Claim 1, wherein its feature is that the above-mentioned umbilical cord clamp may be a disposable injection-moulded umbilical cord clamp.

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<sup>1</sup> Proofreader's Note: The Chinese contains two related terms, 'suocao' and 'qiacao' (alternatively pronounced 'kacao'), neither of which is in the 200,000 entry Chinese-English Dictionary of Mechanical and Electrical Engineering or the 340,00 entry Comprehensive Chinese-English Dictionary. The 'cao' character, which is common to both, means 'slot' or 'groove', the former being more appropriate here as the character appears to refer to a hole passing through the head of the upper limb of the clamp. 'Suo' means 'lock'. The 'qia' character means 'clip' (as a noun) or, when pronounced 'ka'.

## Specification

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### Umbilical cord clamp

This utility model involves a kind of medical appliance – an umbilical cord clamp, a device for use in gynaecologic nursing in particular.

The artificial care that babies receive immediately after their birth is the quick severing of the umbilical cord connecting the baby and the placenta. The umbilical cord remaining on the baby would be ligated by means of manual knot tying or clipping with a special clamping device. The umbilical cord connected to the body does not shed naturally until it has shrunk. However, the greatest defect of the special clamping devices currently used is that cutter pliers have to be used to cut the clamping devices in order to remove them; this process may hurt the baby if not conducted with complete care.

The object of this utility model is to provide a type of umbilical cord clamp that is a disposable umbilical cord clamp. In the head parts of the upper and lower clamp bodies, there is a pair of matching locking slot and cylinder. By opening and closing the lock, the problem of current common clamps causing injuries to babies can be completely avoided.

The objective of this utility model can be realised as follows: The umbilical cord clamp has an upper and lower clamp body, wherein there are at least one row of clamp teeth on the locking sides of both the upper and lower clamp bodies, an elastic ring with a backstop device in the interior connected to the ends of the upper and lower clamp bodies, a lock slot shaped like slots in the head part of the upper clamp body and a lock cylinder shaped in a reverse angle in the head part of the lower clamp body. When releasing the umbilical cord clamp from the baby, the whole umbilical cord clamp can be released simply by gently unlocking the lock cylinder of the lower clamp body.

Since the above technical solutions are adopted, the umbilical cord clamp involved in this utility model has an obvious significant positive effect compared with the umbilical cord clamps that are currently used: the locking slot and cylinder in the upper and lower clamp body in the umbilical cord clamp can be opened flexibly. From the perspective of users, accidental injuries to babies caused by clamps can be completely avoided; and from the perspective of producers, safe and convenient products can be produced with simple moulds.

The umbilical cord clamp involved in this utility model is described in detail in conjunction with the attached figures and embodiment as follows:

Figure 1 illustrates the whole structure of the umbilical cord clamp.

Figure 2 illustrates the whole structure of the umbilical cord clamp when closed.

Figure 3 illustrates the vertical view of Figure 2.

In these figures: 1. Upper clamp body; 2. Lower clamp body; 3. Clamp teeth; 4. Elastic ring; 5 Backstop device; 6. Lock slot; 7. Lock cylinder

As seen in figures 1, 2 and 3, the umbilical cord clamp involved in this utility model has upper (1) and lower (2) clamp bodies, wherein there is at least one row of clamp teeth (3) on each of the locking sides of the upper and lower clamp bodies (1, 2), an elastic ring (4) with a backstop device (5) in the interior connected to the ends of the upper and lower clamp bodies (1, 2), a clamp-slot locking slot (6) in the head part of upper clamp body (1) and a lock cylinder (7) shaped in a reverse hook in the head part of the lower clamp body (2). When using this umbilical cord clamp, first place the umbilical cord between the upper clamp body (1) and lower clamp body (2), then pinch the head parts of the upper and lower clamp body (1, 2); the lock slot (6) and cylinder (7) in the head parts of upper and lower clamp body (1, 2) will then naturally lock the umbilical cord. The umbilical cord will be taken along with the baby. After a period, the whole clamp body can be opened by simply gently unlocking the lock cylinder (7) of the clamp body when the umbilical cord clamp needs to be released.

The elastic ring (Figure 4) and upper backstop device (5) on this umbilical cord clamp are used as follows, respectively: the former is used to connect the upper and lower clamp body (1, 2) to form a unity and the latter is used to prevent the umbilical cord from sliding towards the elastic ring (4). The whole umbilical cord clamp may be a disposable injection-moulded device.

**Attached figures in the specification**

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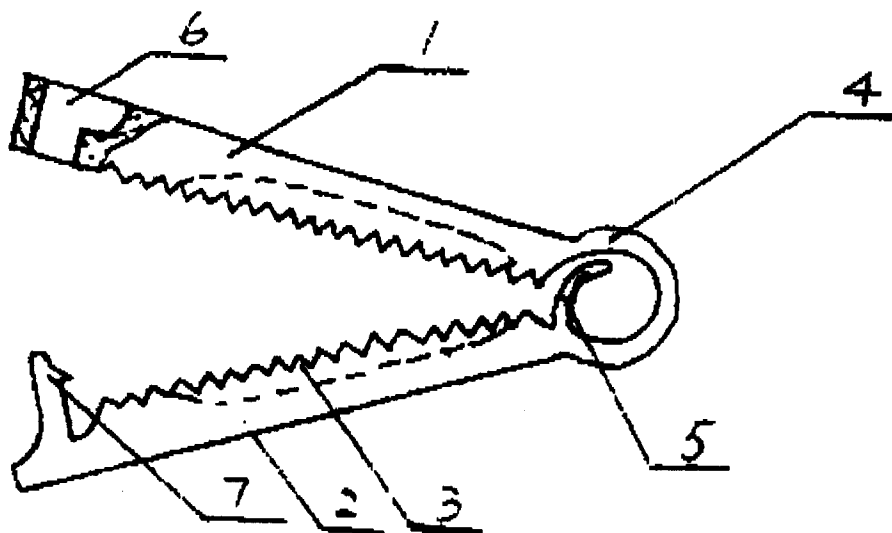


Figure 1

**Attached figures in the specification**

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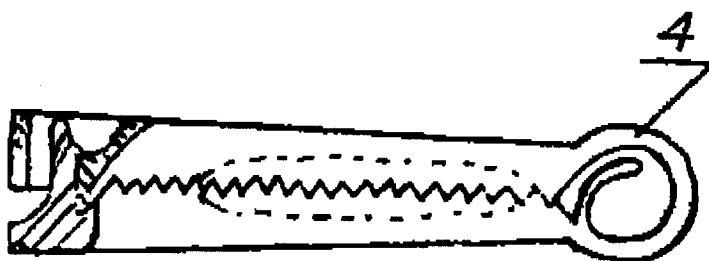


Figure 2

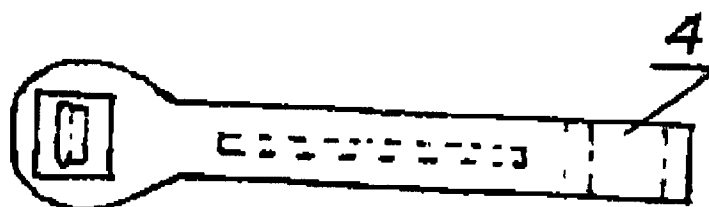


Figure 3

[19]中华人民共和国国家知识产权局

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A61B 17/42

A61B 17/122

## [12] 实用新型专利说明书

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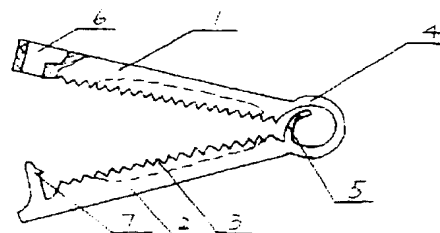
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权利要求书 1 页 说明书 2 页 附图页数 2 页

[54]实用新型名称 脐带夹

[57]摘要

本实用新型涉及一种脐带夹,它具有上、下夹体、弹性圈、止档件等,其特点是在上、下夹体上分别设置了锁槽、锁头,当使用该脐带夹时只要轻扣夹体上的锁头就可开启整个夹体,该脐带夹结构紧凑简便,是一种十分安全、实用的新型医用器械。



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## 权 利 要 求 书

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1. 一种脐带夹，具有上夹体（1）、下夹体（2），其特征是上、下夹体（1）、（2）的咬合端各有至少一排以上的夹齿（3），上、下夹体（1）、（2）的末端连接一个其圈内带有止挡件（5）的弹性圈（4），上夹体（1）的头端具有一个卡槽形状的锁槽（6），下夹体（2）的头端具有一个倒勾形状的头（7）。

2. 根据权利要求1所述的脐带夹，其特征是上述的脐带夹可以是一次性注塑成型的脐带夹。



# 说明书

## 脐带夹

本实用新型涉及一种医疗器械，尤其是一种用于妇产护理用的器械、脐带夹。

婴儿出生即刻接受的人工护理就是迅速地将婴儿与胎盘之间的脐带剪断。婴儿身上留下的一截脐带不是以人工打结的方式结扎就是用专用夹具夹住，只有在这截连体的脐带干枯萎缩后才会自然脱落，然而，目前使用的专用夹具有的最大缺点是当去掉夹具时必须使用剪钳将夹具剪断，此操作稍有不慎则会伤及婴儿。

本实用新型的目的在于提供一种脐带夹，它是一种一次性的脐带夹，该夹的上、下夹体头端有一对匹配的锁槽和锁头，通过锁的开合可完全避免目前常见的夹具可能会伤及婴儿的问题。

本实用新型的目的是这样实现的：脐带夹具有上夹体、下夹体，其中上、下夹体的咬合端各有至少一排以上的夹齿，上、下夹体的末端连接一个其圈内带有止挡件的弹性圈；上夹体的头端具有一个卡槽形状的锁槽，下夹体的头端具有一个倒勾形状的锁头。当要从婴儿的身上取下脐带夹时，只要用手轻轻地扣动下夹体头端上的锁头，即可拿下脐带夹。

由于采用了上述的技术方案，本实用新型涉及的脐带夹较之目前使用的脐带夹具所具有的积极效果是十分明显的：脐带夹的上、下夹体所带的锁槽、锁头可以灵活开启。从使用者角度看可以完全避免开夹时伤及婴儿的事故发生产生；从生产者角度看可以以简单的模具生产制造出安全、便捷的产品。

下面结合附图和实施例再详述本实用新型涉及的脐带夹。

图 1 是脐带夹的整体结构示意图；

图 2 是关于脐带夹闭合时的整体结构示意图；

图 3 是关于图 2 的俯视图。

图中：1. 上夹体，2. 下夹体，3. 夹齿，4. 弹性圈，5. 止挡件，6. 锁槽，7. 锁头。

由图 1、2 和 3，本实用新型涉及的脐带夹具有上夹体 1、下夹体 2，其中上、下夹体 1、2 的咬合端各有至少一排以上的夹齿 3，上、下夹体 1、2 的末端连接一个其圈内带有止挡件 5 的弹性圈 4；上夹体 1 的头端具有一个卡槽形状的锁槽 6，下夹体 2 的头端具有一个倒勾形状的锁头 7。上述的脐带夹可以是一次性注塑成型的脐带夹。当使用该脐带夹时，先将脐带放入上夹体 1 与下夹体 2 之间，然后捏住上、下夹体 1、2 的头端夹住脐带，此时，上、下夹体 1、2 头端处的锁槽 6、锁头 7 自然锁合夹住了脐带，脐带随婴儿带走，经过一段时间后欲取下脐带夹时只要用于轻轻扣动下夹体头端的锁头 7，即可取走整体的脐带夹。

该胶带夹上具有的弹性圈 4、止挡件 5，分别是：前者用于与上、下夹体 1、2 连接的整体，后者用于止挡脐带向弹性圈 4 内滑动，整个脐带夹可以是一次性使用的注塑成型件。

# 说明书附图

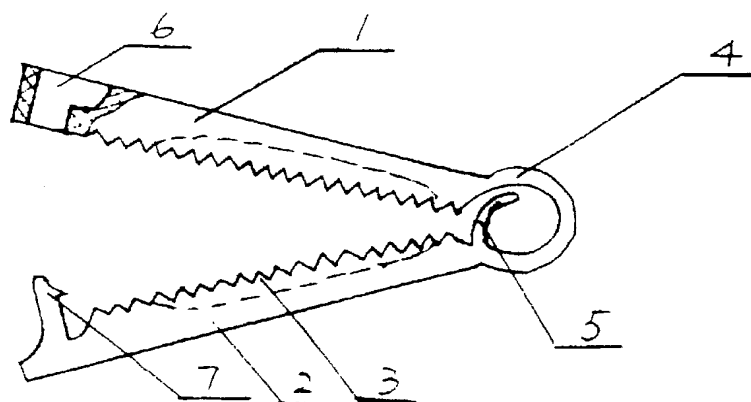


图 1

# 说明书附图

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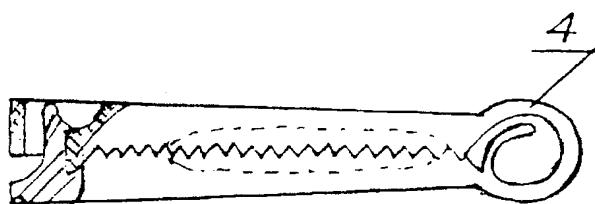


图 2

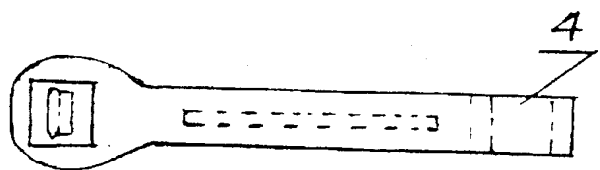


图 3